

27. (Amended) A method for depositing a quantity of fluid containing a nucleic acid or a polypeptide on an array surface, said method comprising:

loading said fluid into a thermal inkjet head comprising an orifice and a firing chamber by contacting said orifice with said fluid in a manner sufficient for said fluid composition to flow through said orifice into said firing chamber

positioning a thermal inkjet head filled with said fluid in opposing relation to said array surface; and

actuating said thermal inkjet head in a manner sufficient to expel said quantity of fluid onto said array surface to deposit said quantity of fluid on said substrate surface, wherein nucleic acids present in said deposited fluid are capable of hybridizing to their complement.

31. (Amended) A method for introducing a nucleic acid fluid sample to a binding agent, said method comprising:

positioning a thermal inkjet head filled with said nucleic acid fluid sample in opposing relation to a surface of an array, wherein said array comprises a plurality of binding agents stably associated with said surface;

actuating said thermal inkjet head in a manner sufficient to expel a quantity of said fluid sample onto said array surface wherein nucleic acids present in said deposited fluid are capable of hybridizing to their complement; and

allowing interaction between said fluid sample and said binding agent.

34. (Amended) A method for detecting the presence of a nucleic acid in a fluid sample containing said nucleic acid, said method comprising:

positioning a thermal inkjet head filled with said fluid sample in opposing relation to a surface of an array, wherein said array comprises a plurality of binding agents stably associated with said surface and at least one of said binding agents specifically hybridizes to said nucleic acid;

actuating said thermal inkjet head in a manner sufficient to expel a quantity of said fluid sample onto said array surface wherein nucleic acids present in said deposited fluid are capable of hybridizing to their complement; and

detecting the presence of any binding complexes between said at least one